

3. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein said wall face portions formed with an undulated shape and wall face portions formed with a flat shape are formed in an intermingled fashion.

4. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein, regarding each of said cell passages, at least one of said plurality of walls making up said cell passage is formed with an undulated shape.

5. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein the undulated deformation whereby said walls are formed with an undulated shape is greater at the outer portion than at the center portion.

6. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein the amplitude of the undulated deformation of walls are formed with an undulated shape is 150% of the thickness of said walls or more.

7. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein a line connecting the highest portions of the protrusions and/or the lowest portions of the recessions of the wall face portions formed with an undulated shape in said cell passage direction repeats a pattern of turning in the vertical direction to said cell passage direction on said wall face.

8. (Amended) An undulated-wall honeycomb structure according to Claim 3, wherein cell passages formed by said wall face portions of said walls formed in an undulated shape and cell passages formed by said wall face portions of said walls formed in a flat shape appear and coexist in a discontinuous manner.

9. (Amended) An undulated-wall honeycomb structure according to Claim 3, comprising a cell passage area A formed with a generally circular cross-section from the center, and a cell passage area B formed with a generally ring-shaped form at the outer side of said cell passage area A:

wherein said cell passage area A contains cell passages formed by said wall face portions of said walls formed having an undulated shape;

and wherein said cell passage area B comprises cell passages formed by said wall face portions of said walls formed having a flat shape;

and wherein the thickness of the walls of the cell passages within said cell passage area B is greater than the thickness of the walls of the cell passages within said cell passage area A, and also wherein the thickness thereof increases in stages from the inner circumference portion toward the outer portion or only increases in stages near the boundary between area B and area A.

10. (Amended) An undulated-wall honeycomb structure according to Claim 1, wherein the material thereof is one or a composition of a plurality of the following group of ceramic materials: cordierite, alumina, mullite, lithium aluminum silicate, aluminum titanate, titania, zirconia, silicone nitride, aluminum nitride, and silicon carbide; or one of the following group: stainless steel, aluminum alloy; or an adsorbent of either activated charcoal or silica gel or zeolite.

16. (Amended) An undulated-wall honeycomb structure according to Claim 1, which is used as an exhaust gas purification catalyst carrier for vehicles, and carries catalyst on the surface on the cell wall face and/or in micropores within the walls of said honeycomb structure.

22. (Amended) An exhaust gas purification catalytic converter system, wherein the exhaust gas purification catalytic converter of the undulated-wall honeycomb structure having a plurality of cell passages which are mutually parallel in channel direction; wherein intersection portions between walls partitioning said cell passages are formed so as to maintain a predetermined pitch at cross-sections perpendicular to said cell passages and positioned systematically, and wherein the wall face portions of said walls excluding said intersection portions are formed so as to have an undulated shape in both the cell passage direction and the cross-sectional direction perpendicular to said cell passage direction, is placed to the upstream side of the exhaust, and the fine particle removing filter according to Claim 12 or a fine particle removing filter comprising a normal flat-wall honeycomb structure is placed to the downstream side of the exhaust.

27. (Amended) An exhaust gas purification system according to Claim 24, wherein said undulated-wall honeycomb structure is a readily exchangeable cartridge type configuration.

31. (Amended) A method for manufacturing an undulated-wall honeycomb structure according to Claim 31, wherein said back plate changes in thickness from the outer portion toward the center portion.

32. (Amended) A method for manufacturing an undulated-wall honeycomb structure according to Claim 31, wherein said back plate has through holes A and through holes B with differing hole diameters.

Please add new claims 34 and 35 as follows:

--34. (New) An exhaust gas purification system according to Claim 25, wherein said undulated-wall honeycomb structure is a readily exchangeable cartridge type configuration.

35. (New) A method for manufacturing an undulated-wall honeycomb structure according to Claim 32, wherein said back plate has through holes A and through holes B with differing hole diameters.--.

REMARKS


Claims 1-35, as amended, are pending herein. Claims 34 and 35 are added hereby.

Examination of this application on its merits is respectfully requested.

Respectfully submitted,

PARKHURST & WENDEL, L.L.P.

April 20, 2001
Date



Roger W. Parkhurst
Registration No. 25,177

Attachment:

Mark Up of Amended Claims

RWP/ame

Attorney Docket No. WATK:211

PARKHURST & WENDEL, L.L.P.
1421 Prince Street, Suite 210
Alexandria, Virginia 22314-2805
Telephone: (703) 739-0220